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SMITHSONIAN
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Contributions may be typed (preferably) or written clearly and should be sent to: M. P. Clifton, Box 44486, Nairobi, Kenya. Receipt of contributions will be acknowledged.

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A NOTE ON THE FLORA AND FAUNA OF TWO SEASONAL SWAMPS IN THE RIFT VALLEY

The fauna and flora of local temporary or seasonal swamps have not received much attention but to a naturalist they should be fascinating. Unfortunately, all too often, time does not allow a proper study. This note reports on what we have been able to undertake over a series of visits to a seasonal swamp area in the Rift Valley, to the West of the Ngong Hills, Kenya.

The main swamp and lake, which is nameless, lies at about 1800m above sea level, below the Ngong Hills at 1° 23.5'S and 36° 35'E. They are shown on the 1:50,000 map as being some 2866m long by 758m wide. There is a smaller swamp area to the West, on slightly higher ground. To our knowledge and on questioning the local people, no appreciable water has accumulated in these hollows since 1962, the last period of heavy and sustained rainfall. Throughout 1970 - 1977 this area has been more or less arid, almost a desert, with little in the way of green vegetation other than Acacia sp., Ficus sp. on the 'scarp' walls and a few hardy, drought-resistant shrubs and small trees, including Dracaena ellenbeckiana.

This year, 1977, we have experienced almost unprecedented rainfall, particularly during February - May. The nearest recording point comparable to the swamp area is Ololkisaili to the South which has recorded the following: January 48.4mm, February 160.9mm, March 9.1mm, April 311.6mm, May 135.6mm, June 26.2mm and July nil. This total of 691.8mm fell on 44 days during the period. In 1976 Ololkisaili recorded a total of only 266.3mm which fell on 27 days, mostly during April and May. As there are no rainfall records on the immediate vicinity of these swamps, these rainfall figures can be taken as reasonabaly representative of the area. It is sufficient to say that the swamps, with up to 2m of water, have been more or less dry for at least 10 years and probably more.

CvS visited these swamps for duck shooting during 1938, 1939 and 1951; all years of high rainfall. DKR, this year, during the course of his duties, had flown repeatedly over the area and noted the flooding of the low lying areas. On 26th June he was able to visit the large swamp and lake (Swamp 1) by travelling over appalling tracks but was able to confirm his aerial observations that there were a great number of water fowl and that the Great Crested Grebes, Podiceps cristatus, were displaying.

It would appear that the first rains flooded the lower areas and certain vegetation responded to it. Further flooding resulted in this early growth being drowned and left under extremely turbid water. On our first visit the water was slowly but clearly receding. There was no grass or sedge such as Cyperaceae around the shore as would have been expected. Little green could be seen in the lake except at one point where there was a thin cover of sedge. One species of aquatic plant, Aponogetum abyssinicus, was only represented by dead and decomposing foliage. This was probably due to the turbidity of the water preventing sufficient light getting to the plants, which, however, responded when the lake level fell towards the end of the month by sending out new green shoots. The dead leaves were extensively used by the Grebes for their floating nests.

The lake contained a considerable number of Acacia trees particularly at the southern end, all standing in water. Most of these were one or two metres above water level with a few taller ones which formed the nesting sites for a number of species of birds. Some of these Acacia nilotica had died, while others were covered in yellow pompom flowers.

On our earlier visits the water was 'alive' with countless miriads of all sorts of swimming organisms. Crustacea of many kinds were everywhere and could be scooped out with a fine mesh net. There were at least two species of Branchipoda and Ostracoda of various sizes from pin-head and less to creatures over a centimetre in length. These, of course, formed a rich food for the water birds. Their life span is short but they leave a mass of desiccation-resistant eggs in the mud. Their millions of scintillating microscopic 'shells' were seen trapped on the cattle footprints where they had died as the water level receded. On 24th July the edges of the upper swamp had been well trampled by cattle and the footprints were found to be full of mosquito larvae, both Anophaline and Culicine.

Of particular interest was the presence of vast numbers of the fresh water snail, Bulinus sp., a known intermediate host of various flukes, Trematodes, including the human Schistasoma (Bilharzia). Either birds had introduced these snails or they had survived the years of desiccation buried deep in the dried mud. This species and others are known to be able to lie dormant for some years but 10 years or more appears to be an excessively long time !

Plants may have also been introduced by birds or their seeds lain dormant all those years. One plant found was the submerged water weed, Utricularia gibba, with its filmy foliage and emergent racemes of yellow flowers. We did not, however,

find this species, nor the snails, in the upper swamp (Swamp 2) which suggests that those in the main swamp had managed to withstand the desiccation, for surely both the snails and the plant would also have been introduced into Swamp 2 by birds ?

A few clusters of the water fern Marsellia sp. were seen together with a very interesting small water plant, the aquatic Elatine sp. which awaits determination. This species is probably the first record of the family in East Africa and South of the Sahara (Mr Gillett & Dr Bally pers. comm.). How did this plant arrive at the swamp ? Carried by birds ? If so, where did it come from ?

Frogs, of course, were numerous, mostly juveniles and five species were collected (det. A. Duff-MacKay). These were metamorphosing Kassina senegalensis; a species with black spots on a white belly, Carcosternum boettzeri; a tree frog, Hyperolius viridiflavus fenrique and a stout toad, Pyxicephalus delalandi. In the smaller upper swamp tadpoles of the Clawed Toad, Xenopus sp. were seen in their thousands in all stages of development. A single example was collected from the larger swamp and doubtless these formed the main food of the Grebes and other water birds.

Several Terrapins, Pelomedusa subrufa were noted, some small and others with a carapace at least 30cm across. The question arises as to how they survive the years of drought or where had they come from and how had they found the swamp ?

Insect life was represented by small clusters of Whirligig Beetles, Gyrinidae, and by hundreds of gaudy Dragonflies, particularly the bright blue bodied Orthetrum sp., banded-winged Brachythemis sp. and the marbled-winged Palpopleura sp. The scarlet Trithemis and the broad-bodied, scarlet Crocothemis sp. were plentiful, as was a species of Pantala. However, these species were virtually absent from the upper swamp and were replaced by the slender-bodied Demoiselle Dragonflies, the blue-green Pseudagrion sp., a Lestes sp. and the orange-red Cereagrion sp. These smaller dragonflies were absent from the lower swamp until 24th July when a few were seen.

Butterflies were a feature along the muddy shoreline where groups of the bright yellow Pieridae, Eurema brigitta gathered to feed on the white liquid bird droppings in the wet mud. These were joined by the white Pierid, Belenois aurota and the Maroon-tip, Colotis danae. Also present is what is probably the world's best known butterfly, the Painted Lady, Vanessa cardui. These were in large numbers, some feeding at the bird droppings. The common Yellow Pansy, Precis hierta, with its

large yellow patches on the hindwings and its relative the Blue Pansy, Precis oenone, with blue patches on the hindwing, were everywhere in the grass or feeding on the mud. On 10th July, at mid-day, while we were at lunch, we witnessed a mass migration of the two latter species. They flew past, between the car and the lake edge in their hundreds per minute, flying low and moving steadily southwards.

Mammals in the area and around the lake were not plentiful but we did see a fine herd of Eland, Taurotragus oryx, on two visits and on each trip a few Grant's Gazelle, Gazella granti with the occasional Giraffe, Giraffa camelopardalis. A pair of Bat-eared Foxes, Octocyon megalotis sat at an earth near the upper swamp which clearly at one time had been flooded. This earth appeared to be a disused burrow of an Aardvark, Orycteropus afer, and all around the shore there were many such burrows which made driving somewhat hazardous. In the mud we recognised tracks of Jackal, Canis sp. and Lion, Panthera leo, but we were confused by the many tracks and small prints of small carnivora which doubtless prey on the nesting birds. On 24th July prints of Leopard, Panthera pardus and the Ratel or Honey Badger, Mellivora capensis were found, those of the Ratel clearly showing the very long digging claws on the front feet.

Birdlife was remarkable and one could only ask how did all these birds find the swamps and what induced them to stay and breed ? Breeding must have started soon after the onset of the rains in February. The following notes will give some idea of the attractivness of these very important seasonal wetlands. On 17th July we had the use of a small boat which made exploration of the lake more comfortable than slogging through the mud or wading in deep water which prevented us from closely examining many potential nest sites.

Outstanding and suprising was the nesting colony of Spoonbills, Platalea alba intermingled with Sacred Ibis, Threskornis aethiopica, and Long-tailed Cormorants, Phalacrocorax africanus. The largest tree held nests of all three species plus a pair of Yellow-billed Egret, Egretta intermedia which had two well grown youngsters. In this same tree we found five Ibis still sitting on eggs plus 29 juvenile birds almost ready to fly. On another tree were three pairs of Spoonbills each with three juveniles at an advanced stage, though not ready to fly. Cormorant juveniles and adults numbered some 20+. In another tree there were two nests and seven juvenile Spoonbills and a fourth tree held only one Spoonbill nest, again with three large youngsters. On 24th July there were four late Spoonbills sitting on eggs while three more Yellow-billed Egrets were nesting and had clutches of 1, 2 and 3 blue eggs while a fourth was nest building.

A fifth tree had many nests but all were empty except for an old egg of a Spoonbill.

On 7th August a further check was made and it was found that all the young Spoonbills, Ibis and Cormorants had left the colony and that there were nine new nests of Spoonbill, nine of Cormorants and a Yellow-billed Egret, all with eggs.

While we were investigating a large juvenile Ibis fell from its nest into the water and appeared to commence swimming so we turned back to rescue it. Our efforts were unnecessary as the bird swam directly to an Acacia and climbed up into the branches with remarkable agility. We had no idea that an Ibis could swim, however another youngster must have fallen into the water as we recovered its body near the shore where it had been blown. A single Fish Eagle, Haliaetus vocifer had found it but had not yet started to feed when we disturbed it. The Eagle had been standing in at least 23cm of water by the carcass.

At Swamp 2, which contained far more half-drowned Acacia trees, we found another nesting colony of Ibis and Cormorant. The nests were in a thicket of Acacia, which made close examination difficult, however we counted 17 juvenile Ibis and seven Cormorant. Parents came readily to the nests to feed the young unperturbed by our presence a few metres away.

Grebes of three species were present in numbers, one of these, the Great Crested Grebe we had seen displaying earlier in June and July. On 17th July, having a boat, we were able to examine any collection of weed that might have been a Grebe's nest. In all we located the following numbers : Great Crested Grebe with nests containing clutches of 1, 4, 6, 1, 2, 2, 6, 4, 1, 4, 4, and on 24th July a further clutch 1 and 2. On 7th August we located a further nine nests of this bird with clutches 1, 2, 3, 2, 3, 3, 2, 3, and 1. Many of these were still white, indicating that they were newly laid.

Black-necked Grebes, Podiceps caspicus had clutch 1 and 3 and the Little Grebe or Dabchick, Tachybapyus ruficollis, had clutch 2, 4, 6, 3, and 1. On 7th August, two further nests were found containing clutch 1 and 1. Some nests contained very fresh eggs almost immaculate pale blue-white but other eggs were very brown stained from the water weeds with which the birds cover their eggs when they leave the nest. On 24th July we located two further Black-necked Grebe nests with clutches 6 and 4. There were many pairs with chicks at various stages which we found more difficult to count. Many of the Grebe nests were supported on submerged branches of the Acacia trees, making it a 'prickly' business to get close enough to count the clutches.

At one point, though nests could be seen, we just could not penetrate the thicket.

Other nesting waterfowl were ducks which used the little islands as nest sites. These islands were formed of old termite mounds. On such places, on 10th July we found two nests of the African Pochard, Netta erythrophthalma, with clutches 9 and 22, the second with a minature egg (taken). When these nests were checked on 17th July we found that the clutch 22 was now 19, again with a minature egg (again taken). Normal eggs measured 58 x 43mm while the minatures were 42 x 33mm. The clutch nine had been reduced to six and a third nest had appeared with four eggs plus a fourth empty nest. All these nests were within about 30cm of each other. On 7th August we found another Pochard with clutch 13. On a second small island we found a Pochard with clutch 12 with one egg out of the nest. This nest was within a metre of that of a Black-winged Stilt, Himantopus himantopus which contained two normal pyriform khaki eggs with black blotches together with a small abnormal egg of pale blue with feint blotched markings (taken). The normal egg measured 43 - 44 x 31mm while the abnormal one was 41.5 x 31mm. On 17th July this clutch had two normal eggs.

An Egyptian Goose, Alopochen aegyptiaca was seen sitting on what was probably a nest but we ommited to inspect it. On 17th July we located a Red-billed Duck, Anas erythrorhynchos in a flotilla of nine newly hatched ducklings but by 14th July one of these had been lost. A single Fulvous Tree Duck, Dendrocygna bicolor was seen on 9th July and it was still there on the 11th. Moccoa Ducks, Oxyura moccoa with their bright blue bill and stiff upright tails were present in small numbers but we could not locate a nest. It is possible that there was insufficient cover of grass or Cyperus as this is their preferred nesting condition. Many nests were found in 1938 - 39 by CvS in another swamp further up the valley. In South Africa the Moccoa is said to often use the floating nests of the Great Crested Grebe. On 18th August we were fortunate enough to find a nest of the Moccoa with a clutch of four eggs. The nest was of dry grass well hidden amongst grass growing over an Acacia branch which had fallen into the water. There was a down lining to the nest and the eggs were very fresh.

Other breeding birds seen were Stilts and the Blacksmith Plover, Vanellus armatus and we located the following nests: three of the Stilt, each with four eggs and another found on 24th July with four eggs. There were three Plovers nests of four eggs. On 10th July we located one Stilt with a clutch of two on a tiny island but left this to examine another tree and returned some ten minutes later and found a newly hatched chick floating in the water. It was lying 'doggo', feining dead.

We persuaded it to swim to shore where it climbed out on rather wobbly legs, and to our suprise we found that the nest had only one egg. The youngster had hatched in the few minutes we were away. We found several other young Stilts and many of these were swimming. We remarked on the close resemblance of a two week old Stilt to the Marsh Sandpiper, Tringa stagnatalis, both in general colour pattern and size. We presume the Stilts must have come from Lake Magadi, the nearest place where the indigenous birds occur, for we know that the Magadi water level has been very high and possibly unsuitable for them to feed or breed. They went through various distraction acrobatics and aerobatics when we approached the nests. Some birds appeared to deliberatly fall into the water and then proceed with the 'broken-wing' behaviour. The Blacksmith Plovers were just as noisy in their protests at the invasion of their nest territory.

Coots, Fulica cristata, were present but no nests were found. Moorhens, Gallinula chloropus were numerous and we located a number of nests up in the flooded Acacias. Many youngsters were seen of all ages, often without parents in attendance. Nests found contained clutches of 3, 6, 3, and there were 2, 2, 2, 2, 2, and 3 juveniles in nests.

We found the Common Sandpiper, Tringa hypoleuca at both swamps but no evidence of nesting. These were either oversummering birds or very early migrant arrivals.

On 17th July we noted Crowned Cranes, Balearica regulorum, behaving in an odd manner, one of the birds running ahead of the car along the grassy track. We discovered it was being followed by a small fluffy brown and cream coloured chick which we were able to catch up with and examine when it hid in the grass. This chick was again seen on 24th July.

Other breeding birds were a pair of Cut-throat Finches, Amadina fasciata in an abandoned nest of the Chestnut Weaver, Ploceus rubiginosus, in a small Acacia tree less than 2m high. Another Weaver nest had been taken over and adapted by a Superb Starling, Spreo superbus and contained two newly fledged youngsters. Another nest was that of the Grey Flycatcher, Bradornis michrorhynchus, which had two young, one considerably bigger than the other. On 24th July at Swamp 2, a nest of the Kenya Rufous Sparrow, Passer iagoensis, was found with two eggs.

Other birds noted at the Swamp were Hottentot Teal, Anas hottentota and Knob-billed Goose, Sarkidiornis melanota. A single European Stork, Ciconia ciconia was present on the 10th and 17th July, with a Great White Pelican, Pelecanus onocrotalus.

Possibly the most interesting bird was a single fine Osprey, Pandion haliætus, which flew over us on 17th July. This bird must have strayed a considerable distance, for Naivasha must surely be the nearest locality for the species. Squacco Herons Ardeola ralloides were present and at the smaller swamp two sub-adult Night Herons, Nycticorax nycticorax in their speckled plumage. Grey Heron, Ardea cinerea and Black-headed Heron, Ardea melanocephala were also present.

We found Painted Snipe, Rostratula benghalensis, a male and two sub-adults or large chicks. They were hiding under a submerged Acacia. The male flew off, then dropped into the water and swam to shore. Meanwhile the two youngsters floated, feining dead thus allowing us to photograph them at a range of 80cm or so. No nest was found.

Casual visitors were a single Grey-headed Gull, Larus cirrocephalus, seen on 10th and 17th July and a White-winged Black Tern, Sterna leucoptera in breeding plumage and another in non-breeding dress. On 14th July these Terns were still present but joined by five or six Whiskered Terns, Sterna hybrida in non-breeding plumage.

On 10th July a single White-breasted Cormorant, Phalacrocorax carbo was spotted and in the grasslands were Cattle Egrets, Egretta ibis and Great White Egrets(Heron), Ardea alba. On 24th July Dr T. Mathews and party saw an African Spotted Crake, Porzana porzana, and several Painted Snipe. New birds seen on 7th August included, with three Great White Pelicans, three Pink-backed Pelicans, Pelicanus rufescens. The Squacco and Night Herons had increased in number, feeding on tadpoles in the shallows and had been joined by 11 Glossy Ibis, Plegadis falcinellus. The number of palaearctic migrant Waders had increased. Among these were Curlew Sandpipers, Calidris ferruginea, with a lot of brown Summer plumage and some Ruff, Philomachus pugnax, some of which retained traces of breeding plumage.

To the East of the swamp there is a spectacular cliff rising some 150m and on this we found a pair of mature Egyptian Vultures, Neophron perchopterus, with a sub-adult. On 7th August the pair of adults were seen copulating and one bird twice entered a hole in the cliff face where it must have had a nest. DKR was also fortunate to see a Harrier-Hawk, Polyboroides typus which was attacked by a Lanner Falcon, Falco biarmicus. A pair of these Falcons may have had a nest as the birds were seen to enter a deep vertical crevice on several occasions. A pair of Verreaux Eagles, Aquila verreauxi, frequented the cliffs in which there were many Speckled Pigeons,

Columba guinea, which were calling loudly. Swallows, Swifts and Martins frequented the cliff face. Rock Hyrax, Heterohyrax brucei could be heard giving their wierd calls.

As a finale we would like to report that on 24th July Dr T. Mathews and party saw a fine Leopard on the rocks on the track to the swamp. Later, on our return, we examined the pug marks on the track and discovered that the Leopard had been accompanied by a juvenile. This is great news. We also saw Klipspringer, Oreotragus oreotragus on the rocks and Steinbuck, Raphicerus campestris in the grass and bush.

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A GRASSHOPPER-WARBLER FROM NGURUMAN ESCARPMENT, KENYA

A Grasshopper-Warbler, Locustella naevia naevia was captured in a mist net at 0645 hrs. on 19th June 1977. The netting site was located at approximately 1 49' S latitude, 35 55' E longitude, in dense undergrowth at the edge of a swamp near the source of the Emungurorkine River, at elevation 2,000m. The bird was ringed, described, photographed and released.

The initial possibility that the bird was a Cisticola was discounted due to the rounded tail, lack of subterminal black spots on the tail feathers, long under-tail coverts with dark centres (end of tail coverts approximately 12mm from the end of the longest tail feather), streaked flanks, small streaks on the neck and small feet. The pointed wing also indicated that the bird was more likely a Palaearctic migrant than a local Cisticola.

The following particulars were also noted : weight, 12.0g; wing length 65mm; bill, black above horn below; iris, dark brown; tail, brown with light barrings; tarsus and feet, pink; no body, tail or wing moult. The tips of the primaries were neither new nor worn.

G.R. Cunningham van Someren, D.J. Pearson, G.C. Backhurst, C.J. Mead (B.T.O., Tring, U.K.) were consulted and shown photographs of the bird and all confirmed the identification of the bird as a Grasshopper-Warbler. Of the other possible streaked Locustella species, the Lanceolate Warbler, L. lanceolata is much smaller then the Nguruman bird, while Pallas's Grasshopper-Warbler, L. certhiola and Middendorf's Grasshipper-Warbler,

L. ochotensis should weigh well over 12g and have white at or near the tips of the tail feathers. (Williamson, Kenneth, Identification for Ringers, 1. The Genera Cetta, Locustella, Acrocephalus and Hippolais, June 1974, British Trust for Ornithology.)

This is the first record of a Grasshopper-Warbler for East Africa, the nearest previous record being from Ethiopia. It is remarkable that the bird was captured in June, when most Palaearctic migrants are completely absent from East Africa.

The migration routes and breeding habits of the Grasshopper-Warbler have always been a mystery (Moreau, R.E., The Palaearctic-African Bird Migration Systems, Academic Press, London & New York, 1972, p. 99). Hopefully, future netting and observation of birds in the Nguruman will begin to shed light on this little-known species.

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A DEFINITE SIGHTING OF THE TAITA FALCON

On 12th July 1977 at about 0730 hrs. I was having breakfast at Banda No. 1 of Ngulia Safari Camp in Tsavo West National Park, Kenya, when a rather small Falcon dashed towards the water hole. I first thought it was an African Hobby, Falco cuvieri, but then the Falcon sat on the dead tree closest to the bandas. With my fourty times magnifying telescope I could realise at the first glance that it was a Taita Falcon, Falco fasciinucha. There was a very broad moustachial stripe as in the Peregrine, Falco peregrinus, which neither the Lanner, Falco biarmicus, nor the Hobby have, a brownish black crown and two very distinct chestnut patches at either side (left and right) of the nape, joined by a slightly paler and narrower horizontal band, below which there were two more parallel but paler chestnut stripes running down the hind neck. Eyelids, cere, feet and toes were yellow, bill bluish grey with blackish tip. Above (only seen from the side) it was brownish grey and below buffish white at the throat and from chest to under tail coverts pinkish chestnut with few very small and two bigger dark spots at the flanks. The tail was rather short, giving an Owl-like appearance to the body from some angles. When flying off at eye-level the rump looked rather pale in comparison to the rest of the upperparts.

After a short while the Falcon took off high into the air and in the distance it stooped at a Swallow or Swift but missed it and returned to another tree at the side of the banda. Professor Skinner and his wife happened to be in one of the bandas and I called them to witness. After quite a while the bird took off again but only to sit on the tree in front of the bandas, where we could study it thoroughly. Eventually it took off again, went high into the air and against the opposite hill it could be seen making a vertical stoop. When I was about to continue my breakfast, it appeared again from low over the plain and swung a third time on to that particular tree, where it preened itself intensively. At about 0830 hrs. it took off again and this time disappeared into the distant haze. Since the bird appeared so familiar with that tree I watched out for it the next morning but in vain.

I have observed Lanners and African Hobbies as well and there is no doubt that it was neither of them.

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NOTES ON BIRDS SEEN IN DIANI FOREST, KENYA

Further to our note on the Spotted Ground Thrush, Turdus fischeri in October 1976, (EANHS Bulletin, July/August 1977), I would like to add the following report.

This bird was seen on no less than twelve days in this same forest during the last two weeks of June and the first two weeks of July. On two of these occasions, a second bird was present simultaneously.

Within the time of watching, the bird was seen as often as four times in the same area, suggesting that this site might be on a well used circuit.

The bird arrived with a rapid, purposeful flight, and usually settled on any convenient branch just over a metre from the ground from which, after a few moments, he descended to feed in the usual Thrush manner.

On three occasions having visited once ot twice and at about 10.30 a.m., he alighted and, instead of feeding he preened and sang a delightful, faint, but well sustained song of some duration. He was also seen and heard to utter a 'seeeet' noise, possibly a type of alarm call, not unlike that of the

Dusky Flycatcher, Muscicapa adusta, but rather longer. This is made with the bill wide open.

These observations took place just 50m beyond the point where the well-used coral surfaced track to the Robinson Baobab Staff Quarters turns sharp right into the compound, continuing along the old road which runs along the South side of the quarters, from which it is separated by a strip of forest about thirty metres wide.

The method used was simply to sit quietly in the car for up to two hours, during which time the birds and certain mammals (Red Duiker, Cephalophus harveyi, Suni, Nesotragus moschatus, and a pair of unidentified Elephant-Shrew) became quite accustomed to our presence, and even a small green Snake slid quietly over a branch just in front of the bonnet of the car.

The same site showed us, on no less than eight seperate days, the Pigmy Kingfisher, Ceyx picta. On one of these, a single bird arrived first in a very excited state calling and looking about from a perch not three metres from where, on this occasion, we were standing quietly making bird call recordings. Almost immediately, a second bird arrived and there ensued the most dramatic, noisy, round-and-round flight all within the bare twigs of a little bush no more than a couple of metres in diameter. Eventually, with bills locked, both birds fell into the bushes below, their wings beating like those of two giant Hawk Moths.

A confident pair of Red-tailed Ant Thrush, Nesconyphus rufus were hopping about on fallen branches just as we left the site this morning for the last time this holiday.

Every visit to this forest leaves us with new challenges. This time it was a glimpse of what could only have been a Long-tailed Cuckoo, Cercococcyx sp. though Mackworth-Praed and Grant do not show any of these three occuring regularly in this area. From the glimpse that we had, we noted that the bird was a rich, dark brown on its upper parts, and that the tail was of the same but with olive green and white, the latter regularly spaced down the lateral feathers. Might this have been the Barred Long-tailed Cuckoo, Cercococcyx montanus ? Can anybody help please ? *

In view of all that is being said and written these days about the need to conserve forests, it is unbelievable that a considerable portion of this lovely woodland is already marked out for cultivation. Can anything be done to save it. ?

* The bird seen was almost certainly C. montanus recorded at the coast from the Tana River to Shimoni. The most recent record is a skin collected by P.L. Britton from Shimoni.
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GREAT SPOTTED CUCKOO

On 14th August 1977, Jean Hayes, Michael Clifton and I were fortunate enough to observe a young Great Spotted Cuckoo, Clamator glandarius being fed by a pair of Blue-eared Glossy Starlings, Lamprotornis chalybaeus.

The bird was seen on the South Lake Road, Lake Naivasha, Kenya in Mr C. Thompson's garden. Both he and his sister, Mrs P. Nash reported that there had been three young Cuckoos which the Starlings had raised, and two had left the 'parents' and his garden on 12th August. The remaining Cuckoo was capable of feeding itself, and was seen to do so. However, if a 'parent' was near it begged for food.

It would be interesting to know, maybe from Mrs Hazel Britton, the Nest Record Scheme organizer, if the Blue-eared Glossy Starling is a known host of the Great Spotted Cuckoo.

Dennie Angwin,
P.O. Box 72833,
NAIROBI.

EAST AFRICAN NEST RECORD CARD SCHEME

I am writing to report progress on the analysis of the above Scheme. I anticipate being able to complete analysis of the Non-Passerines by the end of June or the first few days of July. The matter has been delayed by a series of more or less serious illnesses, a grinding volume of other literary work during 1976, and last but not least, gratuitous incarceration as a dangerous spy in Somalia in February and March of this year for five weeks, simply because I had the ill-luck to be a passenger in an aircraft that made an emergency landing in Somalia due to compass error. However, the end of this analytical tunnel is now in sight.

Peter Britton has already completed his analysis of the Passerines, so that during August, and perhaps earlier, we shall be able to collaborate on the 'Discussion' section of this paper, which will be the most difficult to do in some ways, and also the most important. The analysis of species records is, basically, a statistical chore, taking time, but requiring no other powers than patience, perseverance, and attention to detail. However, the discussion, based on five main climatic regions, with differing rainfall regimes, in East Africa, will require refrence to much other work. It is also abundantly clear from the species data that simple answers to the problems of why birds breed at certain seasons will not be available, since the same species may breed in the rains in one regime and the dry season in another. I feel inclined to preface the paper by a quotation from H.L. Mencken (quoted by Dr Dean Amadon in a paper of his in Raptor Research 9; (1/2) p. 1 - 11: 1975) :

'For every complex problem there is a simple answer and it is wrong'

Or alternatively, to quote the late Professor Jock Marshall, with whom I was discussing Wynne-Edwards' controversial theories in 1964; he said that it was absurd to suppose that any one theory would explain every possible set of circumstances. And he was right.

Although this analysis, which has taken me personally months of work, may pose as many queries as it answers, it does, for many species, clearly show peak breeding dates, and pinpoints many subjects for future research. There are a very large number of species with less than ten breeding records which are common and widespread, for example, the Hammerkop, Scopus umbretta and the White-crowned Shrike, Eurocephalus anguitimens. There are far more records for Ayres Hawk Eagle, Hieraaetus dubius (generally considered a very rare bird) than for the Lanner Falcon, Falco biarmicus which also has fewer records than the Peregrine Falcon, F. peregrinus, though the latter is far more local and much less numerous. There is no recent breeding record for the Silvery-cheeked Hornbill, Bycanistes brevis. Any number of similar examples could be given, though of course there are a large number of records for some common species.

Having slaved through all this mass of material I want to make a plea for all, repeat all future breeding records to be put on cards, as well as, or instead of, being reported elsewhere. In recent times the Bird Room of the National Museum has been sending out a newsletter which contains, inter alia, numerous breeding records. I do not know how many of these are put on cards, though I do know that Mr Cunningham van Someren has been active in pushing the Nest Record Card Scheme. *

I would urge those who give their records to Mr van Someren for his newsletter to get a supply of cards and fill them in in the field; it takes a maximum of two minutes per card for the first visit, giving good detail (which is very often omitted).

I would also plead that those who record an unusual breeding record in the literature to do so also on a card. There are, for instance, relatively few records for the Half-collared Kingfisher, Alcedo semitorquata and one recent one, the first for Kenya, is not on a card. If those who consider filling in a card or two now and then an intolerable chore, they should try wading through masses of literature checking references and attempting, as far as possible, to avoid missing any record of importance or, again, duplicating something recorded on a card. If one only had to deal with the cards instead of strewing one's study floor with books and journals at the same time, it would have taken a far shorter time to complete this work.

The finished paper, when it appears, should rank as a landmark in African ornithology. To my knowledge, no other Nest Record Card Scheme anywhere in the world has been analysed in full, nor has any thorough attempt been made to relate breeding seasons to climate in most areas of the tropics. We have attempted to analyse not only the records on cards but all those we have been able to locate in the literature, going back to the early years of this Century, sometimes earlier, so that this paper should be regarded as the definitive work on the breeding seasons of East African birds, and will probably be the only such thing available for any major tropical region anywhere in the world.

Dr Leslie Brown,
P.O. Box 24916,
NAIROBI.

* Mr Cunningham van Someren reports that a majority of the breeding records published in the Bird Room Newsletter have been recorded on the Nest Record Scheme Cards. Ed.

Nest Record Scheme Cards are available in the Bird Room, the National Museum and in the Society's office also at the Museum. Cost : Cts. -/5 per card. Ed.

RINGING NEWS

Bird Ringing in Kenya is permitted again. The Ringing Scheme itself has a permit which is issued to me and all the current Kenya ringers are listed in an Appendix to it. Anyone wanting to ring birds should get in touch with me, giving full

details of his or her ringing experience (particulars of foreign ringing permits would be a big help), and I will apply to the Wildlife Conservation and Management Department for the new name to be added to the Appendix. In some cases the applicant will not be an experienced ringer, so I will then put him in touch with an established ringer for training. More ringers are required, so if anyone is interested, please contact me.

The Ringing Report covering the three years from 1st July 1974 to 30th June 1977 should be published in the Journal soon. It shows that the amount of ringing in East Africa continues at about the same level, but with very little done in Uganda or Tanzania. Some interesting recoveries are reported, a selection of which is given below. The report contains our longest distance recovery (a Ruff), and our fastest (a Marsh Warbler), also there are some interesting recoveries of Ethiopian Region birds.

Now for brief details of some of the recoveries: a Curlew Sandpiper, Calidris ferruginea from Magadi was shot in Iran three years later and a Little Stint, C. minuta, one of comparatively few ringed at Ferguson's Gulf, Lake Turkana, was caught in a mist net in Kazakhstan during part of Dr E.I. Gavrilov's ringing programme; unfortunately though this bird died before it could be released. There are two Ruff, Philomachus pugnax recoveries to north-eastern Siberia, both of which had been ringed at Nakuru: one at 125°E and the other to no less than 153° 40'E - over 11 000km from Nakuru. A Wood Sandpiper, Tringa glareola to the Gor'kii Region of U.S.S.R. was one of only a handfull ringed in western Kenya at Bunyala Rice Project. The first ever recoveries of Marsh Sandpiper, T. stagnatilis have at last come in, one to the Transvaal and the other to the breeding area in the Soviet Union.

The European or Barn Swallow, Hirundo rustica always produces a good number of recoveries and there are seven foreign ones, all to the U.S.S.R. except one, found in Iraq. There are nine foreign recoveries of Yellow Wagtails, Motacilla flava, seven to Saudi Arabia and one to Iran. This species tops the individual species ringing list at nearly 43 000.

The report is notable for the recoveries of Passerines ringed at Ngulia Lodge in Tsavo National Park (West); five Marsh Warblers, Acrocephalus palustris were recovered in West Germany, East Germany, Switzerland, Saudi Arabia and Malawi. This last one, to Malawi, was found only five days after ringing. A wintering Garden Warbler, Sylvia borin was shot in Jordan on its way back to Africa, and a Sprosser, Luscinia luscinia, which had been ringed in the middle of the night, was bagged on its way north the next spring in Lebanon. Lastly, an Ngulia

Red-tailed Shrike, Lanius isabellinus (ringed on the same day as the Sprosser incidentally) was recovered in Kuwait the next April.

Finally, may I ask any ringers who have stopped ringing to please tell me, and, most important, please return all their unused rings: we often run short of certain sizes - new ringers arrive unannounced and want rings - and it takes a long time to have fresh stocks made and delivered. The size which is very low now is 'A' (3.0mm). All returned rings will be bought back, of course.

Graeme Backhurst,
P.O. Box 29003,
NAIROBI

COWRIES ON THE SOUTH KENYA COAST

Whilst visiting the Kenya Coast during late July 1977, seventeen species of living Cowries were located on a small stretch of reef of Tiwi Beach. The species observed were:

Cypraea lynx	Cypraea moneta	Cypraea talpa
C. tigris	C. annulus	C. clandestina
C. carneola	C. helvola	C. cribraria
C. vitellus	C. caputserpentis	C. limacina
C. kieneri	C. histrio	C. caurica
C. erosa	C. isabella	

Cypraea kieneri, C. moneta, C. annulus and C. clandestina were located on the lagoon side of the reef at about 30cm above chart datum. The other Cowries were located on the seaward side of the reef at approximately chart datum.

Cypraea tigris, C. moneta and C. annulus were exposed on weed whilst the rest were discovered under or in the dead coral. It was noted that Cypraea kieneri, C. clandestina and C. helvola were sitting on dull yellow egg clusters.

While none of these Cowries are uncommon we thought that seventeen species in little more than two kilometres of exposed reef which is 'worked' by many people was high. All these Cowries were returned to their habitat after being photographed.

In addition to the above a local fisherman had several Cypraea boivinii which he claimed originated from Shimoni. If this is correct it is a very considerable extension of its range. Has anyone any reference to this species from the East

African Coast?

For the record my wife found a good 'dead' specimen of Cypraea marginalis amongst broken dead coral opposite the Two Fishes Hotel on Diani Beach in January 1969.

Brian and Kay Dengate,
P.O. Box 49832,
NAIROBI.

HINTS ON COLLECTING

FLUID PRESERVATION OF REPTILES, AMPHIBIANS AND FISH

Unlike other vertebrates, there is no satisfactory way of preparing dried specimens of amphibians and fish other than freeze drying which requires elaborate apparatus. Very large reptiles such as Crocodiles and big Turtles can be prepared as skins and skeletons in much the same way as large mammals, but most of the reptiles also have to be preserved in a fluid medium. There are many chemicals which may be used as preservatives, but for whole animals for museum collections alcohol or formaldehyde, or a combination of both, have proved most satisfactory.

In general terms the word alcohol refers only to ethyl alcohol (or ethanol) of which probably the best known property is that which becomes evident towards the end of a cocktail party. The above property is, for the present purpose, an unfortunate one, since it had resulted in this cheap and useful substance being classified as a luxury, and thereby attracting an extremely high rate of taxation in practically every part of the world. The only form in which alcohol is readily available free of liquor tax is as methylated spirit. This has been rendered highly poisonous by the addition of methyl alcohol (which is expensive) and further adulterants have rendered it obnoxious to the olfactory senses (and presumably also to the gustatory) and have imparted to it a bright purple colour. This stuff is all right for lighting the primus, but is really not much use for preserving specimens - though it may be used in emergency.

The National Museum has a permit to use what is called Industrial Methylated Spirit (I.M.S.) which is 90% ethanol, 5% methonol and 5% water, and has been found to be satisfactory at a dilution of 70% total spirit made by adding 350ml water to one litre of I.M.S. The dilution is important as strong alcohol has a high affinity for water which makes it a dehydrating agent, so that if, for instance, one were to put a frog into pure I.M.S. it would shrivel up as if it had been dried in the

sun. It is also important that the concentration is not too low, as alcohol is a weak fixative and preservation will be incomplete. A large volume of spirit should be used for a small volume of specimen, as the fluids in the specimen dilute the alcohol, and the spirit should be changed after a day or two.

The above difficulties make alcohol an unsatisfactory preservative for use by the casual collector. The use of formaldehyde is to be recommended as by far the easiest way of preparing perfect specimens, particularly in the field as is usually the case.

Formaldehyde is a gas which is readily soluble in water, and is usually obtained in a 40% aqueous solution known as 'Formalin'. Formaldehyde and formalin concentrations are forever causing confusion. Remember that 40% formaldehyde is 100% formalin, so that the names formaldehyde and formalin are not interchangable. In spite of this, however, it is not unusual for 4% formaldehyde to be loosely referred to as 4% formalin when it is, of course, 10% formalin, and it is in this way that the confusion is perpetuated. Thus, to make 4% formaldehyde :

1 volume formalin (40% formaldehyde)
\+ 9 volumes water
= 10 volumes of 10% formalin (4% formaldehyde)

Formaldehyde is a strong fixative and the 4% solution is the strength usually employed, though it may be reduced to 1% for small fish, amphibians, and invertebrates, and for storing specimens already fixed. The concentration is by no means critical as it is for alcohol, and the 1 in 10 mixture can satisfactorily be made by crude measurement or by eye.

In the simplest possible way, specimens may be preserved by slitting the abdomens open to expose the viscera and then immersing them in a jar of formaldehyde. Such, however, seldom result is a very presentable specimen, and it is well worth while taking a little trouble to prepare them as follows:-

1. Small specimens should have a small quantity of formaldehyde injected into the abdomen by a hypodermic needle and syringe. Large specimens should have their abdomens incised and the visera loosened on either side to allow easy penetration of the fixative. The abdomens of tortoises should be injected with full strength formalin from as many points of access as possible.

2. All the large muscles should be injected with formaldehyde, but be careful not to inject too much as to cause distortion. In the case of male lizards and snakes, a large quantity of

formaldehyde should be injected into the base of the tail to fully extend the hemipenes.

3. The specimens should be arranged and set as follows :-

a) Frogs should be placed on their backs in a shallow dish of preservative, with the legs loosely flexed on either side of the body, and the arms and all digits extended for best display. Splash preservative over the specimen from time to time and they should be set in 15 to 20 minutes.

b) Lizards should be placed belly downwards in a dish of formalin, and the limbs and digits extended. The tail should be bent round and up along the side of the body. Wedge the mouth open a few milimetres with a wad of cotton or paper. The specimen may take ½ hour to one hour to set.

c) Snakes are best coiled up inside a jar. Wedge the mouth open a little as for lizards.

d) Tortoises should have the head and legs extended as for as possible.

e) Fish. If the fins are extended the fish can be left floating in preservative, but if the fins persist in folding the fish should be laid on a board and the fins kept extended by pins. Pour some formaldehyde over them occasionally and they should set in about 20 minutes.

Labels should be made of strong, good quality paper - photographic paper is excellent - and tied to the specimen. Write only in carbon ink (black Indian ink) or graphite pencil, never in biro or ordinary ink as these always wash out.

The above is necessarily only a brief outline. Anyone wishing to discuss further details is most welcome to contact me at the National Museum.

Alex MacKay,
Herpetologist,
P.O. Box 40658,
NAIROBI.

MAMMAL NOTES

AARDWOLF OBSERVATIONS

The Aardwolf, Proteles cristatus is seldom seen or at least seldom seen and identified. It is a nocturnal mammal, but much more active at dusk and dawn than say the Aardvark, Orycteropus afer. I have seen them as early as 4 o'clock in the afternoon

and as late as 8 o'clock in the morning. The real problem is in the fact that in the poor light and at any distance they are easily mistaken for a Silver-backed Jackal, Canis mesomelas. If in any area where they occur, questionable mammals should be carefully checked with binoculars. Two places where I have seen them recently are at Samburu National Park, Kenya, near the Zebra bomas and near the East African Wildlife Safaris Mara Camp. In the latter area others have been seeing them on an average of one a week.

DIK DIK DISTRIBUTION

In Mr John Williams 'Field Guide to the National Parks of East Africa' he gives the dividing line between Gunther's Dik Dik, Rhynchotragus guentheri and Kirk's Dik Dik R. kirki as the Uasin Ngiro River, Kenya. I have always seen many Kirk's Dik Dik North of the River, but it was only in mid-June this year that I saw my first Guenther's South of the River. There was a pair about half way between Samburu Lodge and Buffalo Springs. I had a very good look at them and the longer more bulbus nose was clearly seen.

THE DIET OF THE RATEL

The Ratel, Mellivora capensis is quite commonly seen in the open plains of the Serengeti National Park, Tanzania, near Ndutu. Though more sightings are in the early morning, they are seen throughout the day. One of their major food items here would appear to be the rodents found on the plains in the patches of higher vegetation such as Solanum and Indigofera sp. They have been seen to criss-cross patches of this at the trot until either they stumble on a rodent or one becomes careless and moves and is snapped up. On another occasion I was attracted to a pair of Ratels by flying dust. They were taking turns digging a small but deep hole into which one would disappear completely. After about five minutes one emerged with a large lizard (probably an Agama). They squabbled over this and as we tried to approach closer to identify the lizard they tore in into two pieces and disappeared into a nearby abandoned Hyaena burrow.

Mr G. Rilling,
c/o P.O. Box 40469,
NAIROBI.

LATE NEWS FROM THE RIFT VALLEY SWAMP

On 18th August CvS with Graham Madge made a further visit to the Swamp with a boat, but to our great disappointment found

that all the nests in the five big Acacia trees had been robbed, almost certainly by humans, for not an egg or chick of the Spoonbills, Cormorants or Yellow-billed Egrets remained. However, our luck was in for we found the nest of a Moccoa Duck with four eggs which were large (80 x 52mm), and feint blue in colour. We also found the nest of a Hottentot Teal which contained four, possibly more, just hatched downy chicks. In addition more fresh Great Crested Grebe nests, four with three eggs each and one each of 2, 4 and 6 eggs while at another nest the parent refused to leave and she was probably brooding newly hatched chicks. On the cliff face the nesting Lanner Falcon repeatedly attacked and drove off an Egyptian Vulture and a Harrier Hawk which ventured too close. The Swifts we have now positively identified as the larger Mottled, Apus aequatorialis and the smaller Nyanza, A. niansae.

G.R. Cunningham Van Someren

LETTER TO THE EDITOR

Dear Sir,

I refer to the note by Dr and Mrs Irvine on p. 63 of the May/June 1977 Bulletin regarding the difference in bill-colour of the White-bellied Go-Away Bird, Corythaixoides leucogaster. While I was detained as a spy in Somalia in February and March this year I amused myself watching these birds, and I also observed that the bills of some were green and others black. I could not detect any other difference except that the green-billed birds were apparently slightly smaller. This difference is not mentioned in most standard works (though every collector who sexed his birds should have noticed it), but it is recorded in Archer and Godman, Birds of British Somaliland and the Gulf of Aden, Vol 111, 1961 p. 686, on the authority of Mearns. The bill of young females is said to be black, but that of adults green or yellowish green.

From Dr Irvine's record it would appear that both sexes were feeding a young bird. This appears to be regular in Turacos, being well documented in Turacus hartlaubii (Van Someren, 1955; Days with Birds), and has also been observed in other species. However, in most species, there is no such easy way of distinguishing the adults as in C. leucogaster. This is a good example of the failure of collectors to record simple facts that wouls make observation in the field much easier. Another is of the obvious differences between the sexes of Bateleur, Terathopius ecaudatus, first pointed out to me by my Mbere observers in Embu District, and not recorded in any standard

work other than Brown and Amadon (1969); Hawks Eagles and Falcons of the World.

I would, in passing, mention that there are less than ten good dated breeding records for what must be the most abundant of all members of the Musophagidae in East Africa. Any species frequenting savanna must necessarily be far more abundant than any species frequenting forest, because of the very much larger area of habitat available. Thus, the White-bellied Go-Away Bird is probably the commonest we have, but we know very little about its breeding habits.

Dr Leslie Brown,
P.O. Box 24916,
NAIROBI.

SCOPUS

The third issue of Scopus will be published about the same time as this Bulletin. Your Executive Committee has asked me to write this note in order to encourage more subscribers. At present there are about 140, scattered throughout Africa, Europe and North America but more are needed.

Scopus is published every three months, with an extra fifth issue each year taking the form of an annual report. The five issues will comprise about 150 pages this year. Material published relates to East African ornithology in its widest sense: the style is scientific yet readable.

Full details of how to subscribe to Scopus are given in each issue; local members of the Society may receive it by sending Shs. 50/- to D.A. Turner, Scopus a/c, P.O. Box 48019, NAIROBI. The subscription is annual, so those paying now will receive all the copies of Scopus published in 1977, plus the bird report which will be out next year. People having material to contribute, and all contributions are welcome, should send it to Dr D.J. Pearson, Department of Biochemistry, P.O. Box 30197, NAIROBI.

G.C. Backhurst,
P.O. Box 29003,
NAIROBI.

REQUESTS

The Fishes of East Africa by Hugh Copley. Anyone having a copy

of this book or other books on the fish fauna of East Africa for sale, please contact:
Pat Mangan, P.O. Box 135, NAIVASHA, Kenya

Request for Parasitic Wasps

I have recently started field work in Tsavo East National Park and adjacent areas to investigate the biology of, and produce a key to, the Braconid Wasps of that area.

It has become obvious after reference to Museum collections in Africa and Britain that much taxonomic revision will be needed before the task can be completed. At present the parasitic wasps of Kenya seem to be under-represented in collections and I hope that those entomologists amongst you will be able to help rectify this matter, by sending any unwanted specimens, specimens reared from insects or even purposely collected ones to me.

I am primarily interested in Braconidae but if in doubt please send all conceivably relevant material; it will all be put to good use. I will be glad to refund postage to any contributors. Please indicate if you need the specimens to be returned. Thank you.

D.L.J. Quicke,
5 George Road,
Solihull,
West Midlands B91 3BU,
U.K.

ANNUAL ORCHID SHOW

The Kenya Orchid Society will hold its Annual Orchid Show on the undermentioned dates :

Wednesday 12th October	12 noon - 6.00 p.m.
Thursday 13th October	9.30 a.m. - 6.00 p.m.
Friday 14th October	9.30 a.m. - 6.00 p.m.
Saturday 15th October	9.00 a.m. - 5.30 p.m.

Entrance Fees : Adults Shs. 5/-
Children Shs. 2/-

SPECIAL FILM SHOW

The Ornithological Sub-Committee of the Society cordially invite all members of this and the Kenya Museum Society to the showing of the film 'Flight for Survival' depicting the

migration of birds from Europe to Africa, to be shown at the Ford Foundation Hall, the National Museum on Friday 21st October at 5.15 p.m.

SOCIETY NOTES

'Medicinal Plants of East Africa' By our Vice-Chairman, Dr John Kokwaro is now back in stock. Cost to members as follows :

Soft Cover	Shs. 55/-	Local postage Shs 4.50
Hard Cover	Shs. 85/-	Local postage Shs 6.30

'Lake Nakuru' A few copies of Charles A. Vaucher's beautifully illustrated book remain. Cost to members Shs. 50/- plus Shs 4.50 for any postal orders. For both the above books, contact the Secretary/Treasurer in the office or P.O. Box 44486, NAIROBI.

Nature in East Africa The Society's first Bulletin, published between 1947 and 1950 makes fascinating reading. Three complete sets, comprising 11 issues and a Special Supplement , a Guide to the Animals of Nairobi National Park, are available in the Society's office. Cost for a complete set Shs. 100/-. Seperate numbers are also available, except for Series 2 No. 1 at a cost of Shs. 10/- each. The complete set will cost 2.70 in postage, so up-country members should write soon.

'Upland Kenya Wild Flowers' A letter from Oxford University Press recently stated that these books has still not been traced. The Society has ordered 50 copies, if and when they arrive. However, Mr Jan Gillett and the author, Dr Agnew, are working on a revised edition which should be ready at the end of 1978 or early 1979. Those members who have booked copies will be notified if they ever arrive.

'Common Families of Flowering Plants' Dr Moss's booklet, which was advertised in the last Bulletin should be available in September. The selling price to members will be about Shs 5/-, and orders are now being accepted for this very usefull guide.

Posters and Informal Notes should be ready soon. There have been printing problems, but these have now been solved. Further details are available in the office. The informal notes will be on sale at lectures.

1978 Renewals Although it is still very early to be talking about your subscriptions for next year, I would like to say that prompt payment is a great help in the office, and very much appreciated... renewal forms will be sent out with the November/December Bulletin.

NEW MEMBERS

Local Full Members

Tore S. Bade, c/o Mrs Goggs, P.O. Box 43233, NAIROBI
Margaret Booth-Smith, P.O. Box 14678, NAIROBI
Mr M.G. Gilbert, East African Herbarium, P.O. Box 45166, NAIROBI
Mr and Mrs A.J. Gray, P.O. Box 30214, NAIROBI
Mrs Lis Inglis, P.O. Box 42299, NAIROBI
Mrs Mary Labuschagne, c/o Pattinson, P.O. Box 14821, NAIROBI
Scott and Barbara Wallace, Institute for Development Studies, P.O. Box 30197, NAIROBI

Local Half Year Members

Mr Paul Andwana, Jamhuri High School, P.O. Box 40584, NAIROBI
Mr P.J. Cartland, P.O. Box 30118, NAIROBI
Ms J. Darlington, P.O. Box 30772, NAIROBI
Miss V.K. Emery, British High Commission, P.O. Box 30465, NAIROBI
Harm H. Heemstra, c/o ILCA, P.O. Box 46847, NAIROBI
Mrs Vibeke Hilmer-Larsen, c/o Safari Park Hotel, P.O. Box 45038, NAIROBI
Mrs Deborah Kirk, P.O. Box 74305, NAIROBI
Mr and Mrs Haus Miesch, Embassy of Switzerland, P.O. Box 20008, NAIROBI
Mr Davinder Sikand, P.O. Box 49012, NAIROBI
Mr A.H. Simpson, P.O. Box 48788, NAIROBI
Mr Donald Smith, P.O. Box 20102, NAIROBI
Mr John F. Smith, P.O. Box 30156, NAIROBI
Mrs C. Trollope, P.O. Box 42493, NAIROBI

Overseas Full Member

Laurence Neil Rose, 58 St. Mary's Road, Swanley, Kent BR8 7BU, England.

Overseas Half Year Member

Frances Ahern, 20 Goldenrod Ave, Northpost, New York 11768, U.S.A.

Local Junior Full Member

Miss Lopa Patel, P.O. Box 10284, NAIROBI

Local Half Year Member

Shakunt Dodhia, P.O. Box 46206, NAIROBI.

Monday 12th September 1977 at 5.30 p.m. at the National Museum Hall, Nairobi: Mr J. Kahurananga of the E.A. Herbarium will give an illustrated lecture on 'The Ecology of Large Herbivores in the Simanjiro Plains, Northern Tanzania'.

Weekend 17th/18th September 1977: Botanical Field Trip to Ol Donyo Orok, Namanga. Please see previous Bulletin for details. Leader Mr J.B. Gillett of the E.A. Herbarium

Saturday 1st/Sunday 2nd October : Mr S. Moss of the British Council and Mr D. Theobald of the K.I.E. will hold a short course on Basic Ecology - a repeat of the course held in June this year. If you wish to take part in this interesting course please write to Mr S. Moss of the British Council, P.O. Box 40751, NAIROBI, enclosing a stamped addressed envelope and Shs 15/- for printed material. All other equipment will be provided by the organisers. The course will take place in the Nairobi area. No previous knowledge of ecology and taxonomy will be necessary.

Monday 10th October 1977 at 5.30 p.m. at the National Museum Hall Nairobi : Dr Norman Myers will give an illustrated lecture on 'Spotted Cats'

Friday 21st October 1977 'Flight for Survival' (see p. 119-120)

Weekend 22nd/23rd October 1977: Weekend field trip by kind invitation of Mr and Mrs Webb, Nanyuki. Members should be prepared for camping, bringing all equipment, food and drinking water. Firewood and washing water will be provided. It is intended to study the wild life and plants in pockets of indigenous forest on the farm. Members wishing to come, please fill in the enclosed slip and return it with a stamped addressed envelope to Mrs A.L. Campbell, P.O. Box 14469, NAIROBI before 3rd October. Route instructions and further details will then be forwarded.

Monday 14th November 1977 at 5.30 p.m. at the National Museum Hall, Nairobi: 'The Rendille' a film about the Rendille pastoral camel nomads in northern Kenya, produced by Granada Television, Mr A. Grum who was anthropology consultant will introduce the film and answer questions afterwards.

November field trip to be announced later.

December 10th/12th 1977 Camping trip to study the Birds at Lake Jipe, Tsavo West National Park. Leader Mr D.A. Turner.

Wednesday morning bird walks lead by Mrs Fleur Ng'weno continue. Please meet at the National Museum at 8.45 a.m.

THE EAST AFRICA NATURAL HISTORY SOCIETY

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